S/N: 09/838,982 December 24, 2003

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In the Specification

Amend the specification by inserting, before the first line following the title, the following sentence:

"This application claims the benefit of U.S. Provisional Application No. 60/214,554 filed

June 27, 2000."

[0012] This computer program may have the following inputs: 1) Flattest keratometry reading;

2) manifest refractive sphere error (in minus cylinder form); 3) target final refractive error; and 4)

Horizontal visible iris diameter (HVID); the fifth input varies depending on whether the fitting

lenses used had variable base curves or variable connecting zone depths. In the case of the former

the input identifies the base curve of the lens observed to just give simultaneous apical and

tangential touch, or in the case of the latter the input identifies the connecting zone depth of the

lens observed to just give simultaneous apical and tangential touch. The sixth input also depends

on which fitting lens set type is used, concentric rings or variable angles. In the case of the

former the input is the diameter of tangential touch by the lens having the concentric rings or in

the case of the latter the input identifies the peripheral angle observed to meet the criteria of

touch diameter relative to lens diameter.

Abstract of the Invention

[0066] The present invention is directed to a contact lens design and methods of manufacturing,

fitting and using such lenses. As an example, tThe contact lens may be designed forto be used in

a corneal refractive therapy (CRT)program. The contact lens according to the invention

overcomes the deficiencies of the prior art, and The lens provides a design which allows proper

fitting of a patient, whether for corrective contact lenses or for use in a <u>CRT</u> corneal refractive

therapy program. The ability to properly fit a patient will alleviate, at least to a great degree,

corneal-abrasions from poorly-distributed bearing, corneal-warpage from decentered lenses,

edema from tight fitting lenses and discomfort from excessive lens edge standoff. The simplified

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design allows a novice or relatively unskilled fitter to visualize the relationship between the contact lens and cornea of a patient's eye. The design and corresponding relationship to the patient's cornea allows selection of original trial lenses and any subsequent modifications to be easily designed or corrected. The lens design also provides improved ability of a fitter to consult with a lens designer to discuss clearly the lens cornea relationship for determining of the lens design.—Due to the rational design of the lenses according to the present invention, a minimal number of lens parameter increments can be identified to cover the range of common corneas. It is therefore possible to provide pre-formed lens buttons or blanks which are easily formed into a final design, thereby simplifying and speeding up the treatment process. Further, any adjustment of the lens design which may be required based upon trial fitting or the like, is easily envisioned and implemented by the fitter.